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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,139	12/22/2004	Klaus Leuschner	2003P03731WOUS	4510
7590 Siemens Corporation Intellectual Property Department 170 Wood Avenue South Iselin, NJ 08830			EXAMINER RAO, SHEELA S	
			ART UNIT 2128	PAPER NUMBER
			MAIL DATE 08/25/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/519,139	<b>Applicant(s)</b> LEUSCHNER, KLAUS	
	<b>Examiner</b> SHEELA RAO	<b>Art Unit</b> 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 12-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/22/04</u> .  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. This Office action is in response to papers filed on 22 December 2004.
2. Claims 12-29 are pending and presented for examination. A Preliminary amendment filed concurrently cancels claims 1-11 and add claims 12-29.
3. Applicant's submission of references on form PTO-1449, filed on December 22, 2004, has been considered. A signed copy of the form is attached. The submission of the Foreign Patent Document No. DE 101 14 639 A1 has been considered to the extent of the information in the English translated Abstract.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 12-15, 20-25, and 27-29 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent Application Publication No. US 2003/0011332 A1 to Mays, II. The prior art to Mays, II teaches of the control of motors within fan modules for use in personal computers. The limitations of the instant invention are anticipated by Mays, II as stated hereinbelow.

With regard to claims 12 and 29, wherein a ventilation device for ventilating boards mounted in a support unit is claimed, and the ventilation device comprises,

at least one fan unit connected to a power supply unit by connecting wires (see Fig. 3, item 100, and cable 110, as well as paragraph [0043]) ; and

a control unit for monitoring the at least one fan unit, wherein the control unit controls a control element arranged in a power circuit of the connecting wires (see Fig. 4, item 121 and paragraph [0044]), wherein a temperature monitoring device is assigned to each board for through-connecting a switching device connected in parallel to the control element, if a board temperature is greater than a board limit temperature (see Fig. 4, item 134 and paragraphs [0011] and [0044]).

As per the placement of the switching elements as claimed in claim 13, wherein the switching device has switching elements arranged respectively on a board, the placement of the switching devices (items 158a and 158b) is shown in Fig. 4 and explained in paragraph [0049]. The cited portions of the prior art also teach the arrangement as claimed by claim 15, wherein the switching units and the control unit are arranged in the support unit separately from one another.

Claim 14 defines the temperature monitoring devices as assigned to the boards and switching elements as being combined in each case to form a switching unit. Mays, II shows this in Fig. 4 where the temperature sensor (item 134) is included with the control circuit (item 121) and is described in paragraph [0044].

Claim 20 defines each switching element as configured as a semiconductor switching element. And claim 21 states the semiconductor switching element is a power MOSFET. Mays, II teaches the use of such elements in paragraph [0049] wherein the configuration of a semiconductor switching element is essentially described and the use of MOSFETs is stated.

With regard to claims 22 and 23, wherein the fan unit has a brushless motor with integrated tachogenerator as a drive is claimed, the prior art of reference states that brushless fans include a brushless DC motor which provides a tachometer terminal as per paragraph [0017].

As per claims 24 and 25, the temperature monitoring device comprises a sensor diode integrated in an integrated circuit of an electronic component of the respective board and that the sensor diode is for temperature recording is stated. As stated in paragraph [0044], sensor (item 134) is included to ascertain temperatures within the fan module.

Claim 27 states that the control unit is connected to a control computer by a bus. Mays,II teaches the presence of such in paragraph [0069] with the use of the serial interface and communications port which essentially includes the bus (see paragraph [0023]).

The configuration of the bus as a System Management Bus (SMB bus), Intelligent Platform Management Bus (IPMI bus) or I<sup>2</sup>C bus as per claim 28 is taught in paragraph [0023].

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 16-19 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication No. US 2003/011332 A1 to Mays,II as applied to claim 1 above, and further in view of US Patent No. 6,018,456 to Young et al.

The limitations of the instant invention with regard to the ventilation device, as per claim 1, is taught by the prior art of Mays,II. Claims 16-19 are directed to where the boards in the support unit are arranged in a pluggable manner in a backplane, and the parallel switching of the switching elements with the control element is established via a backplane line in common to the switching elements. However, Mays,II fails to teach this aspect within a computing device; for this reason, the prior art of Young et al. (hereinafter "Young") is relied upon. Young teaches of an enclosure system for receiving a number of pluggable computer peripheral devices including fan modules, as stated in line 66 of column 5 through line 12 of column 6 and in Figs. 1 and 8. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the backplane plug-in-ability as taught by Young for the boards made by Mays,II so as to allow for computing devices to be able to include numerous peripherals. Furthermore, the use of a backplane allows for an arrangement in which only the backplane needs to be interchanged if different buses or configurations are used as opposed to the entire device, which would result in lower costs and more flexibility.

As per claim 26 wherein plural fan units are arranged, Young shows the inclusion of multiple fans in Fig. 8.

**Conclusion**

8. For the reasons stated above, the limitations of the instant invention are taught or fairly suggested by the prior arts of record; thereby, rendering the instant claims unpatentable.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela Rao whose telephone number is (571) 272-3751. The examiner can normally be reached Monday - Friday from 8:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah, can be reached on (571) 272-2279. The fax number for the organization where this application or any proceeding papers is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. It should be noted that status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see [http:// pair-direct.uspto.gov](http://pair-direct.uspto.gov). Should any questions arise regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kamini S Shah/

Supervisory Patent Examiner, Art Unit 2128

/SHEELA RAO/

Examiner, Art Unit 2128  
August 20, 2008